

**WHAT IS CLAIMED IS:**

1. An image fiber comprising:  
an image fiber body having a twisted portion, wherein  
the rate of twist in the twisted portion is constant.
2. An image fiber according to claim 1, wherein the rate of twist in the twisted portion is set in a range from  $1^{\circ}/\text{mm}$  to  $4000^{\circ}/\text{mm}$ .
3. An image fiber according to claim 1, wherein the rate of twist in the twisted portion is set in a range from  $5^{\circ}/\text{mm}$  to  $100^{\circ}/\text{mm}$ .
4. An image fiber according to claim 1, wherein the rate of twist at the beginning portion of the twisted portion and the rate of twist at the end portion of the twisted portion are set in a range from  $3^{\circ}/\text{mm}$  to  $400^{\circ}/\text{mm}$ .
5. An image fiber according to claim 1, wherein the twisted portion comprises a protective element.
6. An image fiber according to claim 5, wherein the protective element comprises a reinforcing pipe and an adhesive that adheres the reinforcing pipe to the image fiber body.

7. An image fiber according to claim 6, wherein the length of the reinforcing pipe is greater than the length of the twisted portion.
8. An image fiber according to claim 6, wherein the reinforcing pipe overlaps an image fiber protective layer.
9. An image fiber according to claim 8, wherein the reinforcing pipe overlaps the image fiber protective layer by 1 to 10 mm.
10. An image fiber according to claim 5, wherein inside portions of the reinforcing pipe are chamfered.
11. An image fiber according to claim 5, wherein ends of the reinforcing pipe are flared.
12. An image fiber according to claim 5, wherein a middle portion of the reinforcing pipe is tapered.
13. An image fiber according to claim 6, wherein an end portion of the twisted portion is polished.

14. An image fiber according to claim 1, wherein the image fiber body comprises cores, and the rate of twist in the twisted portion is set so that the elongated lengths of the cores due to twisting do not exceed four times the original lengths thereof.

15. A fiber scope comprising:

an image fiber comprising,

an image fiber body having a twisted portion, wherein

the rate of twist in the twisted portion is constant.

16. A fiber scope according to claim 15, wherein the twisted portion comprises a protective element.